User’s Manual

Suitable for 1 phase 230 V 50 Hz electricity driven 3 phase motors

For AC manual frequency changer

Please read the manual before operating the equipment!
There is danger of electric shock inside the machine during operation!

Valid from Mar/1/2009

Conditions of using the equipment:

The equipment is designed only for single phase, 230V, 50Hz electric systems with protective grounding. Increased safety can be reached using a Residual Current Device (30mA).

Maximal power of motor: 250W. Do not use motors with higher power than this because it may lead to failure. To reach proper performance the coils must be connected to delta. Switchboard cover may be removed only when the equipment is disconnected from electricity and a 10 minutes safety time has passed.

Pay attention to switch the reverser in the central idle position when it is plugged into the outlet.

Plug the connector into the outlet with the switch in zero position only. Switch power on only being certain about all wires are properly connected without any damages.

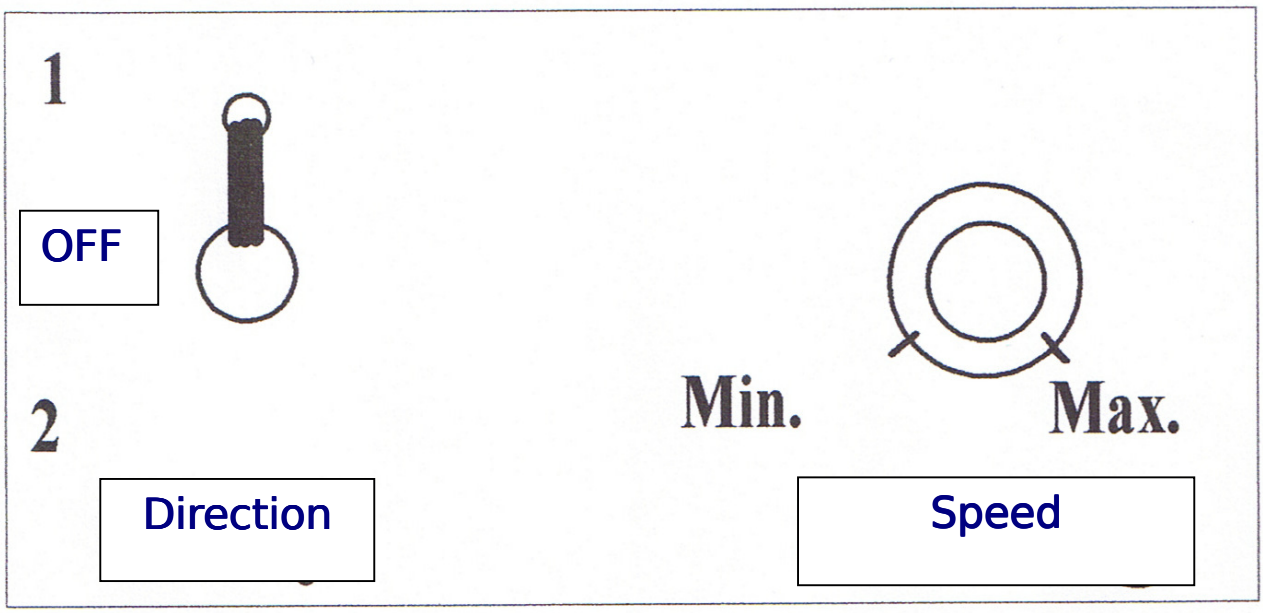
Any damages being present on the equipment, on the electric motor, connector or any cables, the connector must be pulled out of the socket and the equipment must be inspected by an electrician.

During operation make sure that no liquid gets in the equipment, on its cover or any accessories. In case it happens, the connector must be pulled out of the socket and then the liquid shall be removed from the area. If you are not sure about the liquid not being present in the equipment, do not apply electricity on the equipment. About re-starting the equipment ask for the opinion of an expert.

Repair inside the equipment can be done only by an electrician, but only when it is separated from electricity. **ATTENTION!** There is remaining electricity in the equipment after separating it from the system. Therefore there must be a 10 minutes safety duration after pulling the plug out to lower the stored energy to minimum.

During operation there is a dangerous voltage inside the equipment. For your safety use the equipment only to its intended purpose.

Operation:



After connecting the equipment to the electric system, having the direction Switch in the middle position turn the speed button to minimum. Then turn the Direction switch to the desired position the required speed can be adjusted with the Speed button. After proper setting, the next startup may be done with this speed setting. Please avoid frequent switching. Switch only one per second maximum. You may extend the lifetime and decrease the wear of the switch with this.

After starting the drive, the motor gives a high acoustic sound. This is normal because setting the proper speed takes place with a serial of frequent switching. This frequency causes this sound of the motor which changes with increasing or decreasing the rpm.
In case of a doubt ask for the opinion of an electric expert.

In case drive does not start even after repeated switching of direction switch, remove the connector from the socket and turn to an electrician for repair. In such cases the following items shall be checked:

- possible damages on the equipment or accessories;
- voltage present in the socket (try socket with an other equipment)
- if fuse is blown in the equipment (cover can be manually rotated carefully until it is removable, then visually check the soundness of fuse)

Checking the fuse pay attention disconnecting the equipment from the electric system!

Technical data:

Input voltage: 230V / 50Hz
Max. power consumption: 400W
Inlet fuse: 4A (max 5A quick break)
Outlet voltage: 3 x 230V (frequency-dependant)
Nominal output power: 250W
Adjustable range:10Hz – 30Hz, 500-1300 rpm (2 poles)
Swithcing frequency: 6kHz (sinusoidal modulated PWM)
Control mode: non-regenerative, vectored frequency adjustment

Connecting aid: